

What is claimed is:

- 1        1. A single focus lens comprising, arranged along an optical axis in order from the object side:
  - 2              a first lens component having positive refractive power and having a convex surface on
  - 3              the object side;
  - 4              a stop;
  - 5              a second lens component having a meniscus shape with a concave surface near the optical
  - 6              axis on the object side, being made of plastic, and having at least one aspheric surface;
  - 7              a third lens component having a meniscus shape, positive refractive power, a convex
  - 8              surface on the object side near the optical axis, an aspheric object-side surface, and an aspheric
  - 9              image-side surface;
- 10          wherein  
11              the following condition is satisfied:  
12               $0.8 < f_1 / f < 2.0$   
13          where  
14               $f_1$  is the focal length of the first lens component, and  
15               $f$  is the focal length of the entire single focus lens.
- 1        2. The single focus lens of claim 1, wherein the following condition is satisfied:  
2               $0.5 < (|R_2| - R_1) / (R_1 + |R_2|)$   
3          where  
4               $R_1$  is the radius of curvature of the object-side surface of the first lens component, and  
5               $R_2$  is the radius of curvature of the image-side surface of the first lens component.
- 1        3. The single focus lens of claim 1, wherein the following condition is satisfied:  
2               $1.5 < f_3 / f < 3.0$   
3          where  
4               $f_3$  is the focal length of the third lens component.

1       4. The single focus lens of claim 2, wherein the following condition is satisfied:

2               $1.5 < f_3 / f < 3.0$

3       where

4               $f_3$  is the focal length of the third lens component.

1       5. The single focus lens of claim 1, wherein the first lens component, the second lens  
2       component, and the third lens component are arranged in that order along the optical axis from  
3       the object side without any intervening lens element.

1       6. The single focus lens of claim 5, wherein the single focus lens is formed of only three lens  
2       components.

1       7. The single focus lens of claim 6, wherein the single focus lens is formed of only three lens  
2       elements.

1       8. The single focus lens of claim 1, wherein each of the first, second, and third lens components  
2       consists of a lens element.

1       9. The single focus lens of claim 2, wherein the first lens component, the second lens  
2       component, and the third lens component are arranged in that order along the optical axis from  
3       the object side without any intervening lens element.

1       10. The single focus lens of claim 9, wherein the single focus lens is formed of only three lens  
2       components.

1       11. The single focus lens of claim 10, wherein the single focus lens is formed of only three lens  
2       elements.

1       12. The single focus lens of claim 2, wherein each of the first, second, and third lens components  
2 consists of a lens element.

1       13. The single focus lens of claim 4, wherein the first lens component, the second lens  
2 component, and the third lens component are arranged in that order along the optical axis from  
3 the object side without any intervening lens element.

1       14. The single focus lens of claim 13, wherein the single focus lens is formed of only three lens  
2 components.

1       15. The single focus lens of claim 14, wherein the single focus lens is formed of only three lens  
2 elements.

1       16. The single focus lens of claim 4, wherein each of the first, second, and third lens components  
2 consists of a lens element.

1       17. The single focus lens of claim 1, wherein:

2              both the object-side surface and the image-side surface of the second lens component are  
3 aspheric;

4              within an effective aperture range of the single focus lens, the absolute value of the  
5 negative refractive power of the object-side surface of the second lens component decreases in a  
6 direction from the optical axis toward the periphery of the second lens component and the  
7 positive refractive power of the image-side surface of the second lens component decreases in a  
8 direction from the optical axis toward the periphery of the second lens component; and

9              within an effective aperture range of the single focus lens, the positive refractive power of  
10 the object-side surface of the third lens component decreases in a direction from the optical axis  
11 toward the periphery of the third lens component.

1       18. The single focus lens of claim 4, wherein:

2              both the object-side surface and the image-side surface of the second lens component are  
3              aspheric;

4              within an effective aperture range of the single focus lens, the absolute value of the  
5              negative refractive power of the object-side surface of the second lens component decreases in a  
6              direction from the optical axis toward the periphery of the second lens component and the  
7              positive refractive power of the image-side surface of the second lens component decreases in a  
8              direction from the optical axis toward the periphery of the second lens component; and

9              within an effective aperture range of the single focus lens, the positive refractive power of  
10             the object-side surface of the third lens component decreases in a direction from the optical axis  
11             toward the periphery of the third lens component.

1       19. The single focus lens of claim 7, wherein:

2              both the object-side surface and the image-side surface of the second lens element are  
3              aspheric;

4              within an effective aperture range of the single focus lens, the absolute value of the  
5              negative refractive power of the object-side surface of the second lens element decreases in a  
6              direction from the optical axis toward the periphery of the second lens element and the positive  
7              refractive power of the image-side surface of the second lens element decreases in a direction  
8              from the optical axis toward the periphery of the second lens element; and

9              within an effective aperture range of the single focus lens, the positive refractive power of  
10             the object-side surface of the third lens element decreases in a direction from the optical axis  
11             toward the periphery of the third lens element.

1       20. The single focus lens of claim 16, wherein:

2              both the object-side surface and the image-side surface of the second lens element are  
3              aspheric;

4           within an effective aperture range of the single focus lens, the absolute value of the  
5       negative refractive power of the object-side surface of the second lens element decreases in a  
6       direction from the optical axis toward the periphery of the second lens element and the positive  
7       refractive power of the image-side surface of the second lens element decreases in a direction  
8       from the optical axis toward the periphery of the second lens element; and

9           within an effective aperture range of the single focus lens, the positive refractive power of  
10      the object-side surface of the third lens element decreases in a direction from the optical axis  
11      toward the periphery of the third lens element.